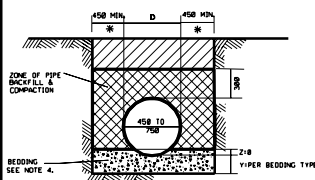


BACKFILL / BEDDING REQUIREMENTS FOR PLASTIC PIPE, METAL PIPE & PIPE ARCH CULVERTS

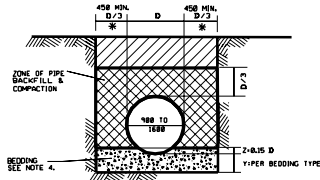


FOR TYPE I BEDDING Y=200
FOR TYPE II BEDDING Y=300
FOR TYPE III BEDDING Y=600

* INCREASE THIS DIMENSION TO D IF PIPE IS PLACED IN AN EMBANKMENT WITHOUT THE BENEFIT OF TRENCHING

DETAIL "A"

FOR CIRCULATOR PIPE
HAVING DIAMETERS LESS THAN 900 mm

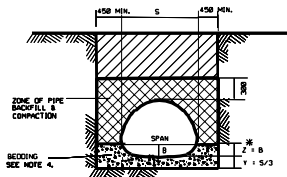


FOR TYPE I BEDDING Y=200
FOR TYPE II BEDDING Y=300
FOR TYPE III BEDDING Y=600

* INCREASE THIS DIMENSION TO D IF PIPE IS PLACED IN AN EMBANKMENT WITHOUT THE BENEFIT OF TRENCHING

DETAIL "C"

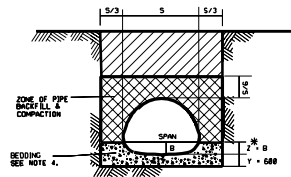
FOR CIRCULATOR PIPE
HAVING DIAMETERS BETWEEN 900 mm AND 1800 mm INCLUSIVE



* Z = DEPTH OF BEDDING AT INVERT IS TO THE WIDEST POINT ON THE PIPE ARCH CULVERT.

DETAIL "B"

FOR ARCH PIPE
HAVING SPANS LESS THAN 1800 INCLUSIVE



DETAIL "D"

FOR ARCH PIPE
HAVING SPANS OF 1800 AND LARGER

LEGEND:



1. BEDDING MATERIAL SHALL BE ON-SITE MATERIAL OR GRANULAR BACKFILL BORROW (50mm MAXIMUM SIZE) IN ACCORDANCE WITH THE TYPE OF BEDDING I, II, OR III MEETING THE FOLLOWING REQUIREMENTS:

A. ON-SITE MATERIAL EXCLUDING UNSTABLE SOIL AS DEFINED BELOW.

B. GRANULAR BACKFILL BORROW SHALL NOT BE ALL ONE SIZE BUT HAVE INTERMEDIATE FRACTIONS FROM NO. 10 TO 50mm MAXIMUM MATERIAL.



2. ZONE OF PIPE BACKFILL & COMPACTION, USE ON-SITE MATERIAL CONTAINING NO ROCK LARGER THAN 50mm IN SIZE & FREE OF FROZEN LUMPS OR CLAY.

FLOWABLE FILL MAY BE USED FOR BACKFILL AND BEDDING.

GENERAL INSTALLATION NOTES:

1. PRECOMPACTION & COMPACTION SHALL BE IN ACCORDANCE WITH AASHTO T-99 WITH DENSITY NOT LESS THAN 96 PERCENT OF LABORATORY DENSITY.
2. BEDDING DETAIL AS SHOWN IS FOR USE WITH UDOT'S STANDARD DRAWINGS 605-1, 605-2 & 605-3
3. RECESS THE BEDDING TO RECEIVE CULVERT JOINTS WHERE APPLICABLE.
4. HAUNCH AREAS UNDER PIPE MUST BE IN FIRM AND INTIMATE CONTACT WITH THE ENTIRE BOTTOM SURFACE OF THE PIPE WITHOUT DISTURBING THE PIPE FROM SPECIFIED LINE AND GRADE.
5. THE WIDTH OF THE TRENCH BOX, OR OTHER SHIELD, MUST EXCEED THE REQUIRED WIDTH OF THE BACKFILL IN THE BEDDING AND BACKFILL ZONES.

TABLE 1

TYPE OF BEDDING	TYPE OF SOIL FOUNDATION	TYPE OF BEDDING MATERIAL
TYPE I	OTHER THAN ROCK OR UNSTABLE SOILS	ON-SITE MATERIAL TO BE PRECOMPACTED
TYPE II	ROCK	ON-SITE MATERIAL
TYPE III	UNSTABLE	GRANULAR BACKFILL BORROW (50 MAX.)

UNSTABLE SOILS = FOUNDATION CONSISTING OF ALL ORGANIC SOILS OR MATERIALS SUCH AS PEAT, MOSS & BOG, OR FINE GRAINED SOILS (SILTS OR CLAYS) AND UNCEMENTED SANDS WHOSE WATER CONTENT EXCEEDS THEIR LIQUID LIMIT. SUCH SOILS WILL REQUIRE THAT A 'TYPE III' BEDDING BE USED.

UTAH DEPARTMENT OF TRANSPORTATION
STANDARD DRAWINGS FOR ROAD AND BRIDGE CONSTRUCTION
SALT LAKE CITY, UTAH

RECOMMENDED FOR APPROVAL

DESIGNED BY

CHECKED BY

DATE

(METRIC)
PLASTIC PIPE, METAL PIPE
OR PIPE ARCH
CULVERT BEDDING

STD. DWG. NO.
605-4

STANDARD DRAWING TITLE

DATE

REMARKS

REVISIONS

1. (605-3) (605-1) (605-2) (605-3) TO 605-4
CHANGED SHEET NUMBER FROM 605-1 TO 605-4
AND REVISED ENTIRE DRAWING